which, however, Mr. Lort Phillips obtained in Central Somali-land <sup>1</sup>. The same gentleman, and also Herr Menges, collected several specimens of N. saltianus in the neighbourhood of Berbera, and these are now in the British Museum. It may be noted, for the benefit of sportsmen, that besides the decided dental and osteological distinction described by Dr. Günther<sup>2</sup>, the horns of N. saltianus may be distinguished from those of N. kirki by being flattened along their inner side and therefore triangular in section, while those of the latter species are rounded and therefore circular in section.

## April 7, 1891.

F. Du Cane Godman, Esq., F.R.S., Vice-President, in the Chair.

The Secretary read the following report on the additions to the Society's Menagerie during the month of March 1891:---

The total number of registered additions to the Society's Menagerie during the month of March was 83, of which 35 were by presentation, 3 by birth, 39 by purchase, and 6 on deposit. The total number of departures during the same period, by death and removals, was 96.

Amongst the additions I may invite special attention to the following :----

1. A young example of the Ounce or Snow-Leopard (*Felis* uncia), purchased of Mr. W. Jamrach, March 6th, and believed to have been obtained in Bhotan. I have already (see above, p. 197) spoken of the acquisition of this most interesting animal, an example of the only species of the larger Cats which we have not previously been able to exhibit in the Gardens.

2. A small-clawed Otter (*Lutra leptonyx*) from India, acquired by purchase March 16th, being the second specimen of this Otter which has been obtained by the Society<sup>3</sup>.

3. A Lhuys' Impeyan Pheasant (Lophophorus lhuysi), male. A fine example of this rare Pheasant from Szechuen, Western China, obtained by Mr. A. G. Pratt during his recent visit to that country, and purchased of him on the 18th March. This is the first example of the species received in Europe.

I may also remark that among the deaths registered in the Society's Gardens during the month of March was that of a European Crane (*Grus cinerea*), which was acquired by purchase on the 13th May 1848, and had thus lived nearly forty-three years in captivity.

<sup>&</sup>lt;sup>1</sup> Cf. Phillips, P. Z. S. 1885, p. 932, and Sclater, P. Z. S. 1886, p. 504.

<sup>&</sup>lt;sup>2</sup> P. Z. S. 1880, p. 17.

<sup>&</sup>lt;sup>3</sup> Cf. P. Z. S. 1888, p. 564.

The Secretary called attention to the breeding of the beautiful Antelope *Tragelaphus gratus* in the Gardens of the Zoological Society Natura Artis Magistra of Amsterdam (cf. P. Z. S. 1889, p. 220), and exhibited a water-colour drawing of the female and young two days old of this species, forwarded to him by Dr. C. Kerbert, the Director. The following extract from Dr. Kerbert's letter on this subject was read :—"Enclosed I have the pleasure to forward to you the coloured drawing of the female *Tragelaphus* gratus with young two days old, and I beg to add a few particulars about them. The male was received very young about 5 years ago, two females two years later, and the third was purchased last year, all of them from the West Coast of Africa. The first female was covered the 16th March, 1890, and the young boru the 11th November; the second female was covered the 1st August, and within a short time we expect another young one.

"The young is growing very rapidly, and is at this moment 60 cm. high."

The Secretary exhibited on behalf of Mr. W. L. Sclater, F.Z.S., a specimen of a Duck apparently a hybrid between the Mallard (*Anas boscas*) and the Gadwall (*A. strepera*), and read the following extracts from a communication received from Mr. W. L. Sclater on this subject :---

"A specimen of a very curious Duck was brought to the Museum the other day; it was brought here alive, and there can be no doubt that it was obtained somewhere in the vicinity of Calcutta.

"I puzzled over it for some time, but was quite unable to identify it with any of the Indian Ducks or others of which I could easily find figures.

"Mr. Fraser, of this Museum, has suggested that it may be a hybrid between the Mallard and the Gadwall, and I have now little doubt that he is correct in his surmise.

"The following is a description of the bird, which proved on dissection to be a male :--Forehead and crown dark reddish brown, sides of the head and nape bright green, the green extending round the neck so as to form a ring, which is edged with a very thin band of white posteriorly and ventrally; cheeks and chin lightish brown; fore part of the back and scapulars grey barred with brown, getting darker till on the rump is blackish green; no recurved feathers in the tail; tail ashy, slightly edged with grey; primaries ashy grey; secondaries almost black, but with the typical bottle-green speculum; greater secondary coverts grey, broadly tipped with black; median coverts slightly tipped with chestnut-red; beneath, fore part of the breast red with black spots, the colour and spots gradually fading posteriorly, where the plumage is white narrowly barred with black ; under tail-coverts black; axillaries white. Beak black on the culmen throughout the whole length; on either side a broad yellow band from the lores to the tip; feet bright red, nails black.

"A perusal of the description given above will, I think, convince

every one that the bird is intermediate in its coloration between a Mallard and a Gadwall.

"The head, the wing, and the lower parts are specially noticeable, and the only conclusion one can come to is that it is a hybrid. Complete evidence on the subject of naturally bred hybrids of course it is almost impossible to obtain, but I do not see how this bird can be explained in any other way."

Mr. E. T. Newton exhibited and made remarks on a small and abnormally shaped egg of the Common Fowl.

The following papers were read :---

## 1. On the Geographical Distribution of Slugs. By T. D. A. COCKERELL, F.Z.S.

## [Received March 12, 1891.]

The Slugs, or naked Land-Mollusca, are found in almost every inhabitable part of the globe, but the distribution of the several families and groups is much more restricted, presenting features of considerable interest. Salt water is fatal to Slugs, and it is evident that on land they are little fitted for extensive migrations, their tardy pace being proverbial. They frequent old logs and trunks of trees, and may very possibly be carried down rivers or even over short arms of the sea on floating timber; but, broadly speaking, their means of distribution may be said to be almost as small as those of any group of living organisms, not excepting the Mammalia and Amphibia. It follows, therefore, that their geographical distribution offers points of special value as bearing on questions relating to the former extent of land, and also, perhaps, to the climate of earlier times.

For various reasons, which need not be discussed in the present paper, it is practically certain that at least the great majority of Slugs have descended from testaceous forms. This is especially clear in the *Limacidæ*, where in *Parmacella* and other genera the young is much more enclosed in a shell than the adult; while the lifehistories of many of the slug-like *Helicarioninæ* are suggestive of a series of the still existing adult forms.

It is also evident that the Slugs are of polygenetic origin, a fact which should prevent their being nearly all classed under a single family, as is still sometimes done. Of the six families of Slugs recognized in the present paper, five are more nearly allied to as many testaceous groups than to each other.

The classifications of various authors are exceeding diverse, and especially does there seem to be the widest divergence of opinion among good authorities as to what constitutes a family. Thus Ray Lankester <sup>1</sup> gives a family *Limacidæ*, which includes three families

<sup>1</sup> Art. Mollusca, reprinted from Encycl. Brit. 1891.

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